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World Intellectual Property Organization (WIPO) - Geneva, Switzerland  
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse

1339692

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

*June 29, 2005*

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE.

APPLICATION NUMBER: 60/573,134

FILING DATE: May 21, 2004

RELATED PCT APPLICATION NUMBER: PCT/US05/18639



Certified by

*Don W. Duckes*

Under Secretary of Commerce  
for Intellectual Property  
and Director of the United States  
Patent and Trademark Office

## PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Express Mail Label No.

EL988370325US

INVENTOR(S)					
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Lawrence		Solomon		7810 Alton Villa CT. Boca Raton, FL 33433	
<input checked="" type="checkbox"/> Additional inventors are being named on the <u>1</u> separately numbered sheets attached hereto					
TITLE OF THE INVENTION (500 characters max)					
EXACTLY DIVIDABLE, LAYERED, SCORED TABLET					
Direct all correspondence to: CORRESPONDENCE ADDRESS					
<input type="checkbox"/> Customer Number		<input type="text"/>		<input type="text"/>	
OR		Type Customer Number here		Place Customer Number Bar Code Label here	
<input checked="" type="checkbox"/> Firm or Individual Name		Hedman & Costigan, P.C.			
Address		James V. Costigan			
Address		1185 Avenue of the Americas			
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Country		USA	Telephone	212-302-8989	Fax 212-302-8998
ENCLOSED APPLICATION PARTS (check all that apply)					
<input checked="" type="checkbox"/> Specification		Number of Pages	<input type="text" value="11"/>	<input type="checkbox"/> CD(s), Number	<input type="text"/>
<input checked="" type="checkbox"/> Drawing(s)		Number of Sheets	<input type="text" value="1"/>	<input type="checkbox"/> Other (specify)	<input type="text"/>
<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76					
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT					
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.				FILING FEE AMOUNT (\$)	
<input checked="" type="checkbox"/> A check or money order is enclosed to cover the filing fees.					
<input type="checkbox"/> The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number.		<input type="text" value="08-1540"/>		<input type="text" value="\$80.00"/>	
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.					
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.					
<input checked="" type="checkbox"/> No.					
<input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: _____					

Respectfully submitted,

SIGNATURE

TYPED or PRINTED NAME Nicholas P. Chiara

TELEPHONE (212) 302-8989

Date 05/21/2004

REGISTRATION NO.

(if appropriate)

Docket Number:

52,737

1322-013

### USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

**PROVISIONAL APPLICATION COVER SHEET**  
*Additional Page*

PTO/SB/16 (02-01)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Docket Number	1322-013
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INVENTOR(S)/APPLICANT(S)		
Given Name (first and middle (if any))	Family or Surname	Residence (City and either State or Foreign Country)
Allan S.	Kaplan	7011 Mallorca Crescent Boca Raton, FL 33433 USA

Number   2   of   2  

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

5

**UNITED STATES PATENT APPLICATION  
(PROVISIONAL)**

10

**of  
Lawrence Solomon**

15

**and**

**Allan Kaplan**

20

**EXACTLY DIVIDABLE, LAYERED, SCORED TABLET**

25

30

1322-013

EXACTLY DIVIDABLE, LAYERED, SCORED TABLET

5

FIELD OF THE INVENTION

The invention is concerned with the making of a tablet dosage form for the administration of pharmaceuticals or  
10 other materials. The novel scored tablets of the invention may be readily and accurately separated into separate parts which contain predetermined quantities of ingredients.

BACKGROUND OF THE INVENTION

15

It is well known to provide tablets for handling pre-measured quantities of materials which allow consumers to use various materials without the need to use expensive and cumbersome measuring devices. Tablets have been used to  
20 prepare measured amounts of herbicides, pool-treating chemicals, pigments, pharmaceuticals and other solid products which are used in measured amounts. It is common with these tablets to form the tablet with an indentation, commonly referred to as a "score," that is sized and positioned to  
25 enable an end user to break the tablet into one or more components. It is recognized that heretofore a method of producing complete, accurate, and predictable division of active ingredient(s) in a tablet has not been disclosed.

30

Many drugs require dosage adjustments. Tablets such as warfarin are scored and are highly potent and patients are frequently advised by physicians to divide warfarin tablets to effect dosage adjustments. If a patient divides a tablet of this drug, the result is likely to not  
35 be an exact division of the tablet. The resultant imprecise dosing may cause adverse medical consequences.

## SUMMARY OF THE INVENTION

5           The present invention is concerned with a dosage form containing at least two layers, in which at least one layer is conveniently and precisely dividable into sections, by means of one or more scores that extend substantially to an adjacent layer. The dosage form preferentially comprises a  
10   layered structure composed of two adjacent layers, one containing the active ingredient or mixture of active ingredients (layer 2) and the other containing either an inert substance or one or more active substances (layer 4), wherein layer 2 is fully breakable in an exact,  
15   predetermined manner (such as into two equal halves), whereas layer 4 does not break fully evenly. The reason that layer 2 can be broken into exactly equal halves is that it has a score that extends A) substantially completely into layer 4 or B) substantially to layer 4. Thus, if the tablet  
20   is broken, the break will take place A) only or B) substantially only in layer 4.

          The invention also includes the method of administering a pharmaceutical to a patient which comprises administering a  
25   dosage form comprising a layered structure having two or more layers, wherein the first layer comprises active ingredient(s) and the second layer comprises inert ingredients, or one or more active ingredients. Said first layer being completely scored to allow it to separate  
30   precisely into two or more parts of predetermined amount of active ingredient(s) when the tablet is broken through the score(s).

          The invention further contemplates that the method of  
35   breakage may be manual, but manual breakability is not required if mechanical breakage may be conveniently

accomplished by ordinary means such as by utilizing a commercially-available tablet cutter, a kitchen knife, or a penknife ("manual or mechanical").

5       It is contemplated that should it be desired that layer 4 contain active drug, and there be physical incompatibility between any component of layer 2 with layer 4, a thin separating layer, as is well known in the art, may be placed between layers 2 and 4 that is mutually compatible  
10 with each layer. In that case, the score of layer 2 will extend substantially at least to the separating layer (not shown), and possibly into layer 4. For convenience, the term "inert layer" when applied to a two-layer tablet hereafter, is intended to encompass the circumstance in  
15 which layer 4 as used above contains active drug(s) and is not inert.

#### BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

20       Fig. 1 is a side view of a cross-section of a two-layer scored tablet according to the invention, which shows an embodiment in which the score terminates at the interface of the active and inert layers.

25       Fig. 2 is a side view of a cross-section of a two-layer scored tablet according to the invention, which shows an embodiment in which the score extends through the active layer and into the inert layer.

30       Fig. 3 is a side view of a cross-section of a two-layer scored tablet according to the invention, which shows an embodiment in which the score extends through the interface of the active layer into the inert layer and a reinforcing  
35 ridge has been formed as part the inert layer.



Fig. 4 is a top view of a two-layer scored tablet according to the invention which has been scored into four sections.

5

#### DETAILED DESCRIPTION OF THE INVENTION

The present invention is particularly useful when precise dosing is important and patients undergo dosage  
10 adjustments from time to time.

Examples of these drugs includes, nonexclusively, warfarin, digoxin, digitoxin, and l-thyroxine.

15 As shown in Fig. 1, the active layer 2 is placed against layer 4 and score 6 is created to extend completely through the active layer to but not into the inert layer. This arrangement allows the active layer to be divided into two exact sections because the break occurs at the interface  
20 of the inert and the active layers in such a manner that the portions of the tablet containing the active drug are completely and exactly separable. While this embodiment is a tablet in which the active layer is divided into two parts, it is also possible to provide three or more scores  
25 that extend up to or into the inert layer.

Fig. 2 varies from Fig. 1 in that the score extends into layer 4.

30 Fig. 3 varies from Fig. 2 in that a reinforcing ridge 12 is created as part of layer 4 in register with ridge 6 to help protect the tablet from breakage.

Fig. 4 is a top view of an embodiment of the  
35 invention in which the tablet is scored to provide sections 14, 16, 18 and 20. Shading 22 is used to show the sloping

walls of the scores while line 24 shows the bottom of the score mark.

5 The drawings illustrate the scores as being V-shaped but the shape of the scoring profile is not critical to the scope of the invention, and the invention includes scores having any type of profile that allow the precise division of the active layer without regard to the accuracy of the division of the remainder of the tablet.

10

It is contemplated that the different layers may either have the same or different colors.

15 The tablets may be made using conventional ingredients such as those disclosed in standard textbooks such as Remington's Pharmaceutical Sciences, 17<sup>th</sup> Ed. (1985) pp. 1603-1632, which are incorporated by reference.

20 The technique of making the tablets may comprise first feeding a granulation of the inert component into a tablet die and tamping the granulation into place. Then, a granulation of the active drug is placed on top of the tamped inert granulation and an embossed die having the reverse configuration of a score mark(s) is applied to the top of the granulation of the active ingredient to form the tablet with a groove or grooves (or score(s)) being pressed into the active layer by the embossed die as described above.

30 As examples, layer 2 may contain one or more of the following, and layer 4 may be substantially inert or may contain one or more of the following as well.

35 The following list discloses a variety of active pharmaceutical ingredients which could be given singly or in combination either in layer 2 or layer 4, with layer 4 in the invention's more preferred embodiment containing no

active drug. These examples are a small subset of the possible examples, which comprise substantially every tablettable drug or drug combination that has existed, is in existence, or that may come to exist.

5

#### HYPOGLYCEMIC AGENTS:

Thiazolidinediones: Pioglitazone, rosiglitazone

10 Sulfonyleureas: Glyburide, glipizide, glimepiride,  
chlorpropamide

Biguanides: Metformin

Meglitinides: Nateglinide, repaglinide

Glucosidase inhibitors: Acarbose, miglitol

15

#### ANTIHYPERTENSIVE AGENTS:

##### Beta-blockers:

Acebutolol, atenolol, bisoprolol, celiprolol, metoprolol,  
mebivolol, carvedilol (a mixed alpha-beta blocker), nadolol,  
20 oxprenolol, penbutolol, pindolol, propranolol, timolol,  
betaxolol, carteolol,

##### Calcium antagonists (calcium-channel blockers):

Nifedipine, amlodipine, verapamil, diltiazem, nisoldipine,  
25 felodipine, isradipine, lacidipine, lercanidipine,  
nicardipine, manidipine

Thiazide-type diuretics (with or without potassium-retaining  
diuretics such as triamterene, amiloride, spironolactone,  
30 etc.):

Hydrochlorothiazide, chlorothiazide, cyclopenthiazide,  
polythiazide, bendrofluazide, hydroflumethiazide,  
chlorthalidone, indapamide, methylclothiazide, metolazone

35 Angiotensin converting enzyme inhibitors:

Captopril, enalapril, lisinopril, ramipril, trandolapril,  
quinapril, perindopril, moexipril, benazepril, fosinopril

5 Angiotensin receptor blockers:

Losartan, valsartan, candesartan, telmisartan, eprosartan,  
irbesartan

10 High-ceiling (loop) diuretics (with or without potassium-  
retaining diuretics such as triamterene, amiloride,  
spironolactone, etc.):

Furosemide, torsemide, ethacrynic acid, bumetamide

Aldosterone antagonist diuretics:

15 Spironolactone, eplerenone

Alpha-blockers:

Doxazosin, terazosin, prazosin, indoramin, labetolol (a  
mixed alpha-beta blocker)

20

Central alpha-agonists:

Clonidine, methyldopa

Imidazoline:

25 Moxonidine

Direct vasodilators:

Hydralazine, minoxidil

Adrenergic neuronal blocker:

30 Guanethidine

LIPID-MODIFYING AGENTS:

A) Statins:

Lovastatin, simvastatin, pravastatin, rosuvastatin,  
atorvastatin, fluvastatin

5 B) Fibrates:

Clofibrate, bezafibrate, fenofibrate, gemfibrozil,  
ciprofibrate

C) Others:

10 Ezetimide, niacin, acipimox

While certain preferred and alternative  
embodiments of the invention have been set forth for  
15 purposes of disclosing the invention, modifications to the  
disclosed embodiments may occur to those who are skilled in  
the art. Accordingly, this specification is intended to  
cover all embodiments of the invention and modifications  
thereof which do not depart from the spirit and scope of the  
20 invention.

Claims:

1. A dosage form comprising a structure consisting of at least two stratified layers of different composition, wherein a layer comprises one or more active ingredients and is exactly and predictably dividable by a scoring pattern placed into or substantially to an adjacent layer which is substantially an inert layer, or contains one or more active ingredients.
2. A dosage form as defined in claim 1 wherein the score extends completely through the active layer and ends at the interface between the active layer and the inert layer.
3. A dosage form as defined in claim 1 wherein the score extends completely through the active layer and past the interface between the active layer and the inert layer so that the score ends in the inert layer.
4. A dosage form as defined in claim 1 wherein the unscored or incompletely scored layer contains active drug or drugs.
5. A dosage form as in claim 4 wherein an inert separating layer exists and the unscored or incompletely scored layer contains active drug(s).
6. A method of administering a pharmaceutical to a patient which comprises administering a dosage form as in claim 1, wherein a first layer comprises one or more active ingredients and is exactly and predictably dividable by a scoring pattern placed into or substantially to an

adjacent layer which is substantially an inert layer, or contains one or more active ingredients.

5 7. A method as defined in claim 6 wherein the score in the dosage form extends completely through the active layer and ends at the interface between the active layer and the inert layer.

10 8. A method as defined in claim 6 wherein the score in the dosage form extends completely through the active layer and past the interface between the active layer and the inert layer so that the score ends in the inert layer.

15 9. A method as defined in claim 6 wherein the unscored or incompletely scored layer of the dosage form contains active drug or drugs.

20 10. A method as defined in claim 6 wherein the dosage form has an inert separating layer and the unscored or incompletely scored layer contains active drug.

# ABSTRACT

5 A dosage form comprising a structure consisting of at  
least two stratified layers of different composition,  
wherein a layer comprises one or more active ingredients  
and is exactly and predictably dividable by a scoring  
pattern placed into or substantially to an adjacent layer  
which is substantially an inert layer, or contains one or  
more active ingredients.

10



1322-013

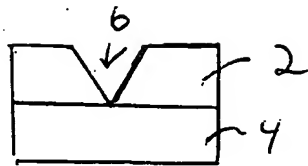


FIG. 1

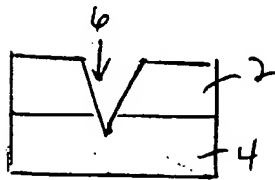


FIG. 2

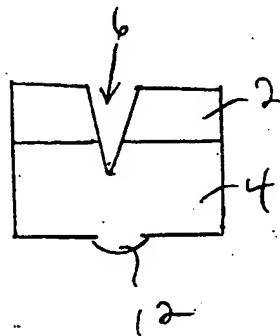


FIG. 3

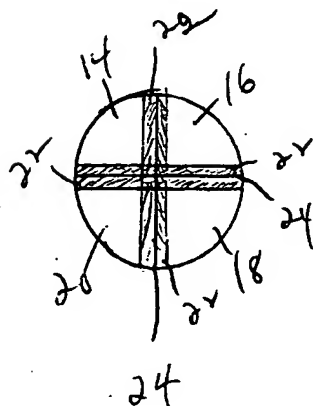


FIG. 4

10/598306

Copy for (DO-EP) 31  
PATENT COOPERATION TREATY

PCT/US2005/018639

From the INTERNATIONAL BUREAU

**PCT**

NOTIFICATION OF THE RECORDING  
OF A CHANGE

(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

To:

COSTIGAN, James, V.  
Hedman & Costigan, P.C.  
1185 Avenue of the Americas  
New York, NY 10036  
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 16 November 2006 (16.11.2006)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 1322-034 PCT	
International application No. PCT/US2005/018639	
International filing date (day/month/year) 23 May 2005 (23.05.2005)	

1. The following indications appeared on record concerning:		
<input checked="" type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input type="checkbox"/> the agent <input type="checkbox"/> the common representative		
Name and Address SOLAPHARM, INC. 1000 S Pine Island Road Suite 230 Plantation, FL 33324 United States of America  <b>EPO-DG 1</b> 2 7. 11. 2006  <b>TEAM 14</b>	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:		
<input type="checkbox"/> the person <input checked="" type="checkbox"/> the name <input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence		
Name and Address ACCU-BREAK PHARMACEUTICALS, INC. 1000 S Pine Island Road Suite 230 Plantation, FL 33324 United States of America	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
3. Further observations, if necessary:		
4. A copy of this notification has been sent to:		
<input checked="" type="checkbox"/> the receiving Office <input checked="" type="checkbox"/> the designated Offices concerned <input type="checkbox"/> the International Searching Authority <input type="checkbox"/> the elected Offices concerned <input type="checkbox"/> the International Preliminary Examining Authority <input type="checkbox"/> other:		

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Authorized officer  <b>Samuels Frederick</b> Facsimile No. +41 22 338 89 65 Telephone No. +41 22 338 94 71
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# PATENT COOPERATION TREATY

## PCT

10/598706

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 1322-034 PCT	FOR FURTHER ACTION		See item 4 below
International application No. PCT/US2005/018639	International filing date (day/month/year) 23 May 2005 (23.05.2005)	Priority date (day/month/year) 21 May 2004 (21.05.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant ACCU-BREAK PHARMACEUTICALS, INC.			

- This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
- This REPORT consists of a total of 4 sheets, including this cover sheet.  
  
In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.
- This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application
- The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

Date of issuance of this report 21 November 2006 (21.11.2006)	
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Authorized officer  Nora Lindner  e-mail: pt02@wipo.int

# PATENT COOPERATION TREATY

REC'D 23 SEP 2005

WIPO

PCT

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:  
JAMES V. COSTIGAN  
HEDMAN & COSTIGAN, P.C.  
1185 AVENUE OF THE AMERICAS  
NEW YORK, NY 10036

## PCT

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) <b>21 SEP 2005</b>	
Applicant's or agent's file reference <b>1322-034 PCT</b>	
<b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No. <b>PCT/US05/18639</b>	International filing date (day/month/year) <b>23 May 2005 (23.05.2005)</b>
Priority date (day/month/year) <b>21 May 2004 (21.05.2004)</b>	
International Patent Classification (IPC) or both national classification and IPC <b>IPC(7): A61K, 9/20, 9/44, 9/22 and US Cl.: 424/464, 467, 468</b>	
Applicant <b>SOLARPHARM, INC</b>	

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

#### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-8300	Date of completion of this opinion <b>01 September 2005 (01.09.2005)</b>	Authorized officer David Vank <i>David Vank</i> Telephone No. (571) 272-3104
--	--	--

Form PCT/ISA/237 (cover sheet) (April 2005)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/US05/18639

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed  
☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper  
☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.  
☐ filed together with the international application in electronic form.  
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/US05/18639

**Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)

Claims 3-5, 10, 12-15, 18-26, 32-38, 42 YES

Claims 1-2, 6-9, 11, 16-17, 23, 27-31, 43-44 NO

Inventive step (IS)

Claims 3-5, 10, 12-15, 18-26, 32-38, 42 YES

Claims 1-2, 6-9, 11, 16-17, 23, 27-31, 43-44 NO

Industrial applicability (IA)

Claims 1-44 YES

Claims NONE NO

**2. Citations and explanations:**

Claims 1-2, 6-9, 11, 16-17, 23, 27-31, 43-44 lack novelty under PCT Article 33(2) as being anticipated by US 5,738,874 ('874).

'874 disclose pharmaceutical tablets comprising three separate layers (abstract and Figures 1-2). Said tablets comprise both an immediate release and sustained release component (abstract). According to '874, two of the three layers comprise one or more drugs (abstract; Examples 1-6; Claims 1-7). The layers may comprise either the same or different drug (abstract; column 5, lines 14-30; Examples 1-6). It should be noted that the examiner gives no patentable weight to the order of the layers in the instant claim set. As written, this appears to be an arbitrary parameter. It is the examiner's position that ketoprofen, a well-known arthritic medicine, is present in an amount sufficient to treat pain.

Claim 1 lacks novelty under PCT Article 33(2) as being anticipated by US 3,336,200 ('200).

'200 disclose tablets comprising two or more segments further comprising drugs (Figures 1-3 and column 2, lines 24-26). The tablets may be either sustained or immediate release (Example 2).

Claims 3-5, 10, 12-15, 18-26, 32-38, 42 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest tablets with the limitations set forth in the instant claims 3-5, 10, 12-15, 18-26, 32-38, 42.

Claims 1-44 meet the criteria set out in PCT Article 33(4), and thus contain industrial applicability because the subject matter claimed can be made or used in industry.